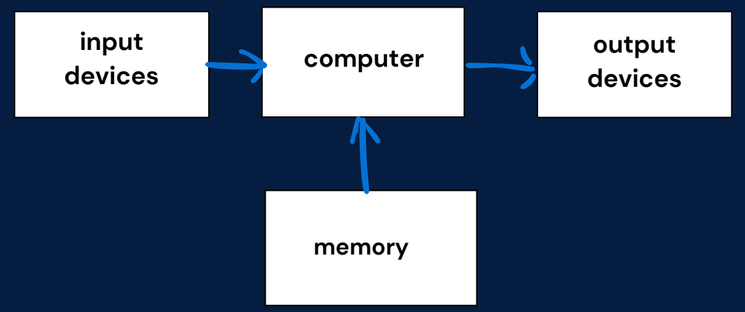
Embedded Operating System



A Embedded OS is designed to run specific tasks in embedded devices, such as cars, washing machines, or medical equipment. It is perfect for devices that don't need a full computer OS but just need to perform certain tasks reliably and quickly.
A washing machine is controlled by an embedded system that manages its operations based on user input, sensors, and timing.

How it works:

- These systems are highly specialized, and the OS is designed to be lightweight and fast for specific functions (e.g., controlling a washing machine's cycles).
- They often have limited resources (like memory and processing power) and are very efficient in handling a specific task.

For ex : Embedded Linux, VxWorks, QNX.

Embedded Operating System

An embedded operating system (OS) is a specialized software that helps control and manage the hardware of devices that aren't traditional computers, like washing machines, microwaves, or smartwatches. Unlike general-purpose operating systems like Windows or macOS, an embedded OS is designed to perform specific tasks efficiently and reliably.

Types of Embedded OS

- **Real-Time Embedded OS (RTOS)**
- **Standalone Embedded OS**
- **Networked Embedded OS**
- **Mobile Embedded OS**